## BYZANTINE HOSPITALS

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Byzantine hospitals for the sick drew support from powerful groups within East Roman society. The emperors both as public officials and private philanthropists, the bishops of the official church, monastic leaders, lay aristocrats, and for many centuries the medical men, sought to secure institutions for the sick which could provide both men and women with bed, board, nursing care, and the expertise of highly qualified physicians. Byzantine hospitals were designed with one purpose—restoring their patients to health. To explore fully the history of these remarkable medical facilities would require a careful study of most major facets of Byzantine society, a task too great for a single monograph, to say nothing of a short study such as this.1 But it is both possible and useful in such a brief account to address a few key questions about public medical institutions in the East Roman Empire.

[The reader is referred to the list of abbreviations at the end of the volume.]

<sup>1</sup>Byzantine hospitals have not been treated by most general histories of the Eastern Roman Empire. For example, the standard account of Byzantine history—G. Ostrogorsky, The History of the Byzantine State (New Brunswick, N. J., 1969)-ignores them along with other philanthropic institutions. Even the recent work by A. Kazhdan and G. Constable, People and Power in Byzantium (Washington, D. C., 1982) mentions them only rarely. H. Hunger (Reich der neuen Mitte [Graz, 1965], 173-81), however, does incorporate hospitals and other charitable agencies into a general account of the empire's religious life. In the 1960s two works appeared which concentrated on the hospitals: A. Philipsborn, "Der Fortschritt in der Entwicklung des byzantinischen Kran-kenhauswesens," BZ, 54 (1961), 338-65 and D. Constantelos, Byzantine Philanthropy and Social Welfare (New Brunswick, N. I., 1968), esp. 152-221. In his study Constantelos has tried to identify as many Byzantine xenones and nosokomeia as possible. For the study of Byzantine hospitals two primary sources are of special importance. I list them here with the abbreviations used hereafter.

Miracula Artemii: Miracula S. Artemii, ed. A. Papadopoulos-Kerameus, Varia graeca sacra (St. Petersburg, 1909), 1–75. PantTyp: "Le typicon du Christ Sauveur Pantocrator," ed. P. Gautier, REB, 32 (1974), 1–145.

Consideration of the following questions should help, on the one hand, to introduce East Roman hospitals to students of Byzantine and medieval society in general and, on the other hand, to underscore their central role in the development of Byzantine medicine—the subject of this symposium. First, when were Byzantine hospitals organized? Second, where were they usually located? Third, who sought them out as patients? Fourth, what sort of staff did these institutions maintain? And, finally, why did Byzantine physicians choose to work in hospitals? These questions will apply only to those philanthropic agencies which functioned as modern hosptials do—as institutions which set as their goal healing their patients by rational medical therapy while they fed, sheltered, and nursed them.2 Such a definition excludes agencies which served as hospices, old-age homes, or almshouses, as well as shrines renowned for miraculous cures.

When were hospitals first organized in the provinces of the East Roman Empire? Of the four questions this one poses the greatest difficulty for two reasons. First, Byzantine sources employed many different terms to describe philanthropic institutions, terms which only gradually acquired precise meanings. Thus, words such as xenon or nosokomeion which came to designate hospitals exclusively might have had more general meanings in the formative stages of Byzantine philanthropic institutions. As a result, it is impossible to argue that a given institution, mentioned by a Byzantine source, functioned as a hospital unless the passage includes some information on the kind of services which the facility offered.<sup>3</sup> Second, philanthropic

<sup>&</sup>lt;sup>2</sup>Cf. the definition in *The New Encyclopedia Britannica* (Chicago, 1978), Micropaedia, vol. 5, 147: "an institution staffed and equipped for the diagnosis and treatment of the sick or injured, for their housing during treatment, for health examinations, and for the management of childbirth."

<sup>&</sup>lt;sup>3</sup> See E. Patlagean's Pauvreté économique et pauvreté sociale à Byzance, 4'-7' siècles (Paris, 1977), 193-94.

institutions of the Latin West developed far more slowly than did those of the Byzantine East and did not begin to offer anything resembling hospital care until the thirteenth century. Basing their assertions only on these Western institutions, some scholars have even claimed that true hospitals did not emerge as distinct agencies for medical therapy until the nineteenth century.4 These researchers, as well as most of those who would concede an earlier date for the inauguration of hospital services, simply ignore the Byzantine medical institutions of the late antique era and the early middle ages or class them together with the more primitive hospices and almshouses of the medieval Latin West.<sup>5</sup> A careful consideration of the Greek sources from the fourth through the seventh centuries, however, should overcome both of these difficulties.

No sources refer to permanent charitable foundations of any kind before the fourth century of the Christian era. Although classical Greco-Roman society had provided material benefits for citizens of the local polis, it had no permanent institutions to relieve the misery of the very poor or of those migrants to the towns who had no political standing in the city community.<sup>6</sup> The early Christian Church, on the other hand, stressed the virtue of charity toward society's most unfortunate members, but local congregations were not yet sufficiently large or well organized to institute permanent agencies to succor the poor, the hungry, and the sick.7 The first evidence that the churches of the Roman Empire had begun to open permanent philanthropic institutions comes from the cities of

<sup>4</sup>Such indeed is the standard view among historians of modern medicine. See K. J. Williams, "Hospitals," *Encyclopedia of Bioethics*, ed. W. Reich (New York, 1978), 2, 677–83; P. Starr, *The Social Transformation of American Medicine* (New York, 1982), 145–47.

<sup>5</sup>H. Sigerist, "An Outline of the Development of the Hospital," *BHM*, 4 (1936), 573–81. K. Sudhoff, "Aus der Geschichte des Krankenhauswesens im früheren Mittelalter in Morgenland und Abendland," *SA*, 21 (1929), 164–203, recognizes the difference in the quality of Byzantine hospitals (176), but he does not trace the evolution of these institutions. The classic work on Christian philanthropy, G. Uhlhorn, *Die christliche Liebestätigkeit* (Stuttgart, 1882–90) does not pursue Byzantine philanthropic institutions beyond their origins at the end of the fourth century.

<sup>6</sup>A. R. Hands, Charities and Social Aid in Greece and Rome (Ithaca, New York, 1968), ch. 9: "Health and Hygiene." G. E. Gask and J. Todd, "The Origin of Hospitals," in E. A. Underwood, ed., Science, Medicine and History: Essays . . . in honour of Charles Singer (London, 1953; 2 vols.), I, 122–30. G. Harig, "Zum Problem ,Krankenhaus' in der Antike," Klio, 53 (1971), 179–95. J. Scarborough, "Roman Medicine and Public Health," in T. Ogawa, ed., Public Health (Tokyo, 1981), 33–74.

<sup>7</sup>Uhlhorn (note 5 above), 241–42, 316–18; E. Troeltsch, *The Social Teaching of the Christian Churches* (New York, 1931), 47–50.

the Greek provinces in the fourth century, just as Christianity was emerging as the dominant religion in the urban areas of the eastern Mediterranean. At Antioch Bishop Leontios (344–58) founded a number of hostels for the poor and the strangers in his city, institutions which a later source, the Chronicon paschale, described as both xenodocheia and xenones. Neither the terms themselves nor the references to Leontios' foundations in this chronicle give any indication that they served the sick.8 Archaeological evidence, however, reveals that one of Leontios' xenodocheia was built at Daphne, a fashionable spa outside Antioch to which the wealthy repaired when in bad health.9 Perhaps Leontios located a hospice there so that the sick among the poor could enjoy the advantages of Daphne's salubrious air and water alongside of the rich.

Sometime between 357 and 377, Eustathios, bishop of Sabasteia in Asia Minor, built a renowned *ptochotropheion* (a house to nourish the poor) for his city. Although the fourth-century author Epiphanios describes this institution as one designed for those crippled with disease, he does not mention any physicians working in it, nor does he indicate in any other way that Eustathios' *ptochotropheion* had advanced beyond providing food and shelter for these sick. In other words, his account does not offer any evidence that the bishop had founded a hospital.<sup>10</sup>

The first indications that Christian philanthropic institutions were taking special measures to aid the sick surface in the last third of the fourth century. In a letter addressed to the governor of Cappadocia, Bishop Basil of Caesarea (370–79) referred to several lodges or inns (katagogia) which he had built outside of his city. He emphasized that these were to serve strangers, both those passing through and those who were in need of care because of some illness. To assist these people Basil had hired nurses for the sick and doctors as well as pack animals and escorts. The pack animals and escorts were surely for the strangers who were passing through, but the nurses and physicians must

<sup>&</sup>lt;sup>8</sup>Chronicon paschale, ed. G. Dindorf, Bonn ed. (1832), 1, 535–36. Both xenodocheion and xenon are derived from the Greek word xenos which means simply stranger or guest. Although xenon later came to mean a hospital for the sick, before the end of the sixth century it still could refer to a simple inn or hostel: for example, Procopius, De aedificiis I.11, 23–27.

<sup>&</sup>lt;sup>9</sup>R. Devreesse, *Le patriarcat d'Antioche* (Paris, 1945), 111, note 11.

 $<sup>^{10}\,\</sup>mathrm{Epiphanios},$  Panarion 75.1, ed. K. Holl, GCS, 37 (Leipzig, 1933), 3, 333.

have offered some kind of hospital care to the sick strangers—probably those from among the immigrants to Caesarea who had no homes or families in the town. The presence of doctors suggests that Basil had founded a facility which included medical treatment for the sick, certainly to alleviate their suffering, but perhaps also to find a cure for their ailments.<sup>11</sup>

At the very end of the fourth century, John Chrysostom, bishop of Constantinople (398–404), opened similar institutions in the capital of the East Roman Empire. His biographer Palladios called these philanthropic houses nosokomeia (places to care for the sick). To staff them John appointed two priests as directors and hired physicians, cooks, and servants who were recruited from among celibate ascetics in Constantinople. Although Palladios adds that these institutions served both those stricken with disease and the strangers (xenoi), the term nosokomeion, derived from nosos (disease), suggests that the care of the sick predominated in these foundations. Again, the presence of physicians implies that rational medical procedure played a central role in ministering to the patients.<sup>12</sup>

A student of Bishop John, the ascetical writer Neilos of Ankyra, offers another glimpse inside institutions such as those of Chrysostom and Basil. In an extended metaphor illustrating Christ's care for sinful men, Neilos compares the world and its sinners to a great nosokomeion filled with patients and Christ the physician of souls to the staff doctor. Christ does not give all sinners the same remedy for their spiritual diseases. Rather He adjusts His cures to fit the individual problems of each soul just as the staff physician carefully examines each patient in the nosokomeion to determine the proper medicines and diet to restore health. In this metaphor Neilos assumes that the physician or physicians of early fifth-century nosokomeia were seeking to cure the patients, not simply trying to relieve their discomforts until they died. Neilos' account thus implies that these institutions did indeed offer hospital care, at least to the poor and homeless.<sup>13</sup>

Historians of modern institutions, however, might still object on several grounds to designating as hospitals the charitable facilities which Neilos pictured. First, these institutions treated only the very poor—the homeless immigrants who were collecting in the larger cities of the East Roman Empire during the fourth and fifth centuries. Second, they did not maintain a professional nursing staff; indeed, Chrysostom engaged urban ascetics to tend the patients of his *nosokomeia*. Finally, they offered only rudimentary medical services, access to a physician; a hospital implies a complex hierarchy of medical professionals. <sup>14</sup> A valuable hagiographical text of the seventh century reveals that later Byzantine philanthropic institutions for the sick fit even this much more limited definition of a hospital, and should banish any doubts about the true nature of East Roman *xenones* or *nosokomeia*.

Written shortly after 650, the Miracula Sancti Artemii includes two miracle tales which describe seventh-century hospitals in some detail. The first recounts the story of Stephen, a deacon of Hagia Sophia, who was afflicted with a malady of the groin. When home remedies failed, his parents advised him to commit himself to the surgeons of the Sampson Xenon. During his brief stay, Stephen was assigned a bed near the section for ophthalmic patients. After undergoing cold-cautery treatments for three days, Stephen went into surgery. Having suffered these painful therapies, he was released apparently cured. This tale reveals first that xenones of seventh-century Constantinople admitted patients above the poverty line—in this case a deacon of the principal church of the city who must have received a substantial income and also had family support. Nevertheless, when he fell ill, he sought a hospital for surgery just as a person today would do. Second, it indicates that the xenon staff included specialists-surgeons certainly and perhaps doctors who specialized in eye problems. In any case, ophthalmic patients had a separate station in the xenon.  $^{15}$ 

The second tale describes the ordeal of a cantor who likewise suffered from a disease affecting his groin. During his long stay at the Christodotes Xenon, he was treated by physicians styled archiatroi, the successors to the chief physicians of the Antonine Age who had led the medical profession in the Greek cities of the East. Medics or trained nurses called hypourgoi assisted these doctors. The hypourgoi, in turn, had at their command servants (hyperetai) who carried out non-medical nursing chores about the institution. The story suggests that the hypourgoi, just like the physicians, were career

<sup>&</sup>lt;sup>11</sup>Ep. 94: Saint Basil, Letters, trans. R. J. Deferrari and M. R. McGuire, Loeb (1961), 2, 150.

<sup>&</sup>lt;sup>12</sup> Palladii dialogus de vita S. Joannis Chrysostomi, ed. P. R. Coleman-Norton (Cambridge, 1928), 32.

<sup>&</sup>lt;sup>13</sup>S. Nili epistolarum liber II, epp. 109-11, PG, 79, 248-49.

<sup>&</sup>lt;sup>14</sup>See the comments on hospitals before the nineteenth century in Starr (note 4 above), 145–62.

<sup>&</sup>lt;sup>15</sup>Miracula Artemii, mir. 21, 25–28.

professionals, a suggestion supported by a contemporary Egyptian papyrus which lists an association of hospital *hypourgoi* together with other lay guilds. <sup>16</sup> This tale, thus, confirms the presence of specialized staff positions in Byzantine *xenones*. At the Christodotes, the *archiatroi* supervised therapy, assisted by trained *hypourgoi* and the servants. Second, it demonstrates that nursing had become a profession in the hands of specialists, no longer a pious exercise for ascetics. In sum, these two stories from the *Miracula Sancti Artemii* prove that seventh-century *xenones* functioned in almost every respect as do hospitals of the twentieth century.

Clearly these seventh-century xenones offered more elaborate services than did their predecessors of the late fourth century. It is likely that a gradual growth in services took place in the intervening two hundred years. There is evidence, however, that a major improvement in the status of hospitals as medical centers took place in the sixth century. The emperor Justinian supposedly terminated the state subsidies to the local leaders of the medical profession, the archiatroi of the cities. 17 Several sources, including the Miracula Sancti Artemii, however, prove that physicians called archiatroi were still functioning in the late sixth century and long afterwards, but now as xenon doctors. It appears, therefore, that Justinian did not abolish the city archiatroi; rather, he transferred them to the wards of Christian hospitals where they were now subject to the hospital administrator instead of the curial council of the city.<sup>18</sup> When the premier practitioners of Greek medical science entered the xenones, they no doubt encouraged greater professionalism among other employees directly engaged in patient care.

To summarize, philanthropic institutions offering hospital services were certainly assisting the poor by the end of the fourth century; most students of ancient and medieval society will feel comfortable in calling these *nosokomeia* and *xenones* hospitals. By the end of Justinian's reign, however, some *xenones* in Constantinople and probably in other large towns as well had developed into elaborate medical facil-

ities with highly specialized classes of what today are called health professionals.

Where were Byzantine hospitals located? In nineteenth-century America, hospitals first appeared in larger cities, especially in centers of commerce where people who had left their homes collected in search of employment.<sup>19</sup> In the East Roman Empire, too, the surviving sources first mention xenones for the sick in trading and political centers. Basil opened his medical facility near Caesarea, the economic, political, and ecclesiastical center of the large Cappadocian province.20 Chrysostom built his nosokomeia in the imperial capital. Between 400 and 600, several *xenones* were built in Constantinople. The Sampson, the Euboulos, and the St. Irene in Perama were established before 500.21 The St. Panteleemon and probably the Christodotes were added before 600.22 Many other xenones whose names the surviving sources fail to record no doubt also served the capital. The great commercial cities of Antioch and Alexandria possessed a number of hospitals by the sixth century.<sup>23</sup> Even smaller towns had them. An inscription from the fifth or sixth century, found near the city of Dervisos in Asia Minor, marks the grave of a doctor who had worked in the nosokomeion.24 Indeed, xenones seem to have

<sup>&</sup>lt;sup>16</sup> Ibid., mir. 22, 28–31; Greek Papyri in the British Museum, ed. F. G. Kenyon and H. I. Bell, vol. 3 (London, 1907), 276–77, no. 1028.

<sup>&</sup>lt;sup>17</sup> Procopius, Anecdota 26.5.

<sup>&</sup>lt;sup>18</sup>Miracula Artemii, mir. 22, 28–31; no. 67151, in Catalogue général des antiquités égyptiennes du musée du Caire: Papyrus grecs d'époque byzantine, ed. M. J. Maspero (rep. Osnabrück, 1973); Theodori Studitae epistolae, PG, 99, 1509.

<sup>&</sup>lt;sup>19</sup>Starr (note 4 above), 151.

 $<sup>^{20}</sup>$  A. H. M. Jones, *The Cities of the Eastern Roman Provinces* (New York, 1937), 175–82.

<sup>&</sup>lt;sup>21</sup>To establish when these hospitals were opened it is necessary to examine the tenth-century De cerimoniis of Constantine Porphyrogenitus, I:32: Bonn ed. (1828), 1, 173 (= Le livre des Cérémonies, ed. A. Vogt [Paris, 1967], 1, 161). This section describes the entrance of the heads of five xenones: the Sampson, the Euboulos, the Irene in Perama, the Narses, and the Irene. The order of their entrance is based on the age of the xenones they administer, with the director of the most recent foundation entering last. The last xenon in the list was founded by the empress Irene, 797-802 (Scriptores originum Constantinopolitanarum, ed. T. Preger [Leipzig, 1907], 246); the fourth in the list in the reign of the emperor Maurice, 582-602 (Zonaras, Epitomae historiarum libri, Bonn ed. [1897], 3, 199); the Irene in Perama in the reign of the emperor Marcian, 450-57 (Scriptores originum Constantinopolitanarum, 234; Vita S. Marciani oeconomi, A. Papadopoulos-Kerameus, Analekta hierosol. Stachyologias, 4 [Petersburg, 1897], 258-70). The Sampson and the Euboulos were opened sometime before the Irene in Perama; i.e. before ca. 450.

<sup>&</sup>lt;sup>22</sup> For the Panteleemon see Zonaras, Bonn ed. (1897), 3, 199. The *Miracula Artemii, mir.* 22, 28–31 reveals that the Christodotes was established by the mid seventh century. Since the time from 600 to 650 had been one of constant military effort, it is more likely that civilian foundations like the Christodotes Xenon date from the prosperous years before 600.

<sup>&</sup>lt;sup>23</sup> For Antioch see Procopius, *De aedificiis* II.10, 25; for Alexandria the guild of hospital *hypourgoi* organized by the seventh century is evidence of a well-established *xenon* system (*Greek Papyri* [note 16 above], 276–77, no. 1028).

<sup>&</sup>lt;sup>24</sup>CIG, no. 9256.

become one of the features of the late antique *polis*, the Christian city of God. Thus, when the emperor Maurikios (582–602) decided to beautify his native Arabissi, a town of Cappadocia, he first constructed a magnificent church there and then a large hospital.<sup>25</sup>

The prosperous era of the early Byzantine Empire (395–602) came to an end with the calamities of the seventh century-invasions, internal upheavals, and dramatic demographic decline which resulted in greatly diminishing the prosperity of the Byzantine capital on the Bosporos and radically altering the quality of provincial city life. At Constantinople, however, at least four xenones survived the catastrophic seventh century—the Sampson, the Euboulos, the St. Irene in Perama, and the St. Panteleemon.<sup>26</sup> Moreover, at the end of the eighth century, the empress Irene founded a new hospital.<sup>27</sup> Following her example, the emperor Theophilos (829–42) opened a famous xenon which he designed to afford patients both a healthy exposure to the breezes and a beautiful view. He apparently considered endowing this hospital together with improving the city's walls among his principal benefactions to the people of Constantinople.28 Thereafter, prominent emperors often expressed their beneficence by building new hospitals, a tradition which culminated in the twelfthcentury Pantokrator Xenon which the emperor John II Komnenos founded.<sup>29</sup>

The disasters of the seventh century produced their most striking effects beyond the great walls of Constantinople. Archaeological evidence from the famous urban sites of Asia Minor, Thrace, and Greece suggests that most Byzantine cities rapidly declined after 600; some almost vanished.<sup>30</sup> Despite the decline of ancient city life, there are enough scattered references to hospitals in provincial towns to demonstrate that these institutions did not disappear outside Constantinople. Metropoli-

tan Andrew of Crete built a *xenon* in the eighth century for the people of Gortyna.<sup>31</sup> Bishop Theophylakt founded a medical facility for the citizens of Nikomedeia in the ninth century.<sup>32</sup> Eleventh-century Antioch had at least two hospitals, while twelfth-century Thessalonica had at least one.<sup>33</sup> In the thirteenth century Nicea claimed several.<sup>34</sup> At the same time Philadelphia's bishop Phokas built a new *xenon* for that vigorous town at the head of the Meander Valley in Asia Minor.<sup>35</sup> From the four-teenth century, on the other hand, no references to hospitals in cities other than the capital have so far come to light. It is especially curious that Mistra in the Peloponnesus does not seem to have had a *xenon* for its citizens.

Byzantine sources indicate that xenones were usually associated with cities. In fact, they took their place alongside of other buildings as representative features of Byzantine urban life. In praising the efforts of Michael VIII Palaiologos to restore Constantinople to its former brilliance, Gregory of Cyprus first describes how the emperor replaced the splendid crown of the city's walls to her brow. Second, he mentions the churches he restored, and third, the hospitals and other philanthropic institutions he had reopened.<sup>36</sup> The thirteenth-century intellectual and statesman, Theodore Metochites, considered the two hospitals of Nicea better evidence of the city's high cultural level than its baths or its fortifications.<sup>37</sup> Indeed, as early as the reign of Justinian, xenones for the sick had been hallmarks of the new Christian polis.38

Despite their association with city life, monastic leaders occasionally included hospitals as part of rural religious houses. One of the most famous examples is the Lavra monastery on Mount Athos

<sup>&</sup>lt;sup>25</sup> Iohannis Ephesini historiae ecclesiasticae pars tertia V.22, ed. E. W. Brooks, Scriptores Syri, 85: CSCO, 106 (Louvin, 1952), 206–7. John of Ephesus describes Maurice's foundation with the Syriac word for *xenodocheion*. II.4, *ibid.*, p. 41, however, shows that he used this same term in describing a hospital for the sick at Constantinople.

<sup>&</sup>lt;sup>26</sup>De cerimoniis I.32, 173 (Vogt, 1, 161–62).

<sup>&</sup>lt;sup>27</sup> Scriptores originum Constantinopolitanarum (note 21 above), 246.

 $<sup>^{28}</sup>$  Theophanes Continuatus,  $\it Chronographia$ , Bonn ed. (1838), 94–95.

<sup>&</sup>lt;sup>29</sup>PantTyp, intro., 21.

<sup>&</sup>lt;sup>30</sup> R. Browning, The Byzantine Empire (New York, 1980), 62-64.

<sup>&</sup>lt;sup>31</sup> Vita S. Andreae, ed. A. Papadopoulos-Kerameus, Analehta hierosol. stachyologias, 5 (Petersburg, 1888), 176.

<sup>&</sup>lt;sup>32</sup> Vita S. Theophylacti, ed. A. Vogt, AnalBoll, 50 (1932), 75.

<sup>&</sup>lt;sup>33</sup> For Antioch see J. Schacht and M. Meyerhof, *The Medico-Philosophical Controversy between Ibn Butlan of Baghdad and Ibn Ridwan of Cairo* (Cairo, 1937), 56 and 65. For Thessalonica, Eustazio di Tessalonica, *La espugnazione di Tessalonica*, ed. S. Kyriakides (Palermo, 1961), 146.

<sup>&</sup>lt;sup>34</sup>Theodori Metochitis Nikaeus, ed. C. Sathas, Bibliotheca graeca medii aevi, 1 (Venice, 1872), 145.

<sup>&</sup>lt;sup>35</sup> Theodori Ducae Lascaris epistulae CCXVII, ed. N. Festa (Florence, 1898), ep. 118, 164–65.

<sup>&</sup>lt;sup>36</sup> Gregorii Cyprii laudatio Michaelis Paleologi, PG, 142, 377.

<sup>&</sup>lt;sup>37</sup> Theodori Metochitis Nikaeus (note 34 above), 144-45.

<sup>&</sup>lt;sup>38</sup> Procopius, *De aedificiis* II.10, 1–25 describes Justinian's restoration of Antioch after its sack by the Persians in 540. He closes his account with a reference to the emperor's rebuilding a hospital for the sick. This hospital is listed together with other urban amenities.

which the renowned holy man, Athanasios the Athonite, established in the reign of Nikephoros II (963–69). One of the oldest versions of Athanasios' vita mentions that he built a nosokomeion as part of this community, a facility which was to serve both monks of the monastic community and people from the outside world.<sup>39</sup> By the fourteenth century, however, this hospital accepted only monks.<sup>40</sup>

Who went to Byzantine hospitals for help? To what classes in society did patients belong? Since no patient register from any xenon survives, it is possible only to collect casual references to the people whom hospitals helped. All the sources agree that the late fourth-century medical facilities were designed to serve the poor—and especially the homeless migrants described as xenoi. Less than a hundred years later, however, the monastic leader Theodosios the Cenobearch opened a separate xenon designed to treat people above the poverty level.41 Already Byzantine hospitals were becoming institutions to dispense medical services, rather than shelters for the homeless which included doctors and nurses for those who happened to suffer from disease. The Miracula Sancti Artemii prove that people of some status in seventh-century Constantinople were prepared to go to xenon physicians and even spend days, weeks, or months in a hospital bed. 42 The twelfth-century Pantokrator Xenon did not permit staff physicians to accept tips from patients, a rule which assumes that some of the sick had money.<sup>43</sup> The fourteenth-century poet, Manuel Philes, was treated for some illness at a hospital founded by Michael Glabras. Though not a wealthy man, Philes was surely not one of the desperately poor or a wandering pilgrim—the only sort who would have sought aid from the hospice-hospital in the medieval or early modern West.44

That both the poverty-stricken and men of the middle class patronized Byzantine hospitals like the Pantokrator doubtless helped to win for the *xe-nones* society's respect. They never came to symbol-

ize despair and degradation as did Latin institutions for medical care. Indeed, Western hospitals acquired a bad reputation which managed to survive into the nineteenth century. Byzantine xenones, on the other hand, seem to have become the normal loci for the practice of medicine, at least in twelfth-century Constantinople. When the emperor Manuel I developed some new drugs, his court historian, John Kinnamos, assumed that most people would see these compounds on their visits to the city's xenones. 46

Not only did members of the middle class occupy hospital beds, but there is some evidence that the emperors themselves sought out the advantages of a xenon when they fell ill. A fourteenthcentury manuscript (Vaticanus graecus 299, fols., 368–393°) contains a remedy list from the Mangana Xenon, a hospital located on the very tip of the Constantinopolitan peninsula. One of the remedies (on fol. 374) the list attributes to the emperor's personal physician, Abraam the aktouarios of the Mangana Xenon. Since the twelfth century, physicians with the rank of aktouarios had served as the doctors to the imperial family. Apparently, this post was also linked with the Mangana Xenon. In fact, in 1118, when the emperor Alexios fell desperately ill, the aktouarios and two other doctors transferred him from the old palace to the Mangana complex, according to the historian Zonaras so that Alexios would be close to the hospital there.<sup>47</sup> Since niether the Typikon of the Mangana monastery and hospital survive nor any descriptions of this xenon in action, it is impossible to determine exactly what provisions were made at the hospital for treating the emperor and his family.

Who worked in Byzantine hospitals in the service of the sick? The most important group of xenon employees were surely the iatroi, the staff physicians. In this, Byzantine medical centers resemble far more closely the hospitals of the modern world than they do the hospice-hospitals of the medieval West. Moreover, the role of physicians in East Roman xenones continually expanded until the twelfth century, when they seem to have controlled almost all aspects of these institutions.

The earliest medical facilities—the proto-hospitals of Basil and John Chrysostom—hired *iatroi* to treat

<sup>&</sup>lt;sup>39</sup> Vita S. Athanasii Athonitae B, chap. 41, Vitae duae antiquae sancti Athanasii Athonitae, ed. J. Noret, Corpus Christianorum: Series graeca, 9 (Turnhout, 1982), 173.

<sup>&</sup>lt;sup>40</sup> Doc. 123, in *Actes de Lavre: III. De 1329 à 1500*, ed. P. Lemerle et al., Archives de l'Athos, 10 (Paris, 1979), 25.

<sup>&</sup>lt;sup>41</sup>Lobrede auf den heiligen Theodosios von Theodoros Bischof von Patrai, in Der heilige Theodosios, ed. H. Usener (Leipzig, 1890), 40

<sup>&</sup>lt;sup>42</sup> E.g., Deacon Stephen in Miracula Artemii, mir. 21, 25-26.

<sup>43</sup> PantTyp, 107 lines 1307-8.

<sup>&</sup>lt;sup>44</sup> Manuelis Philae carmina, ed. E. Miller, vol. 1 (Paris, 1855), no. 98, 280–81.

<sup>45</sup> Starr (note 4 above), 151.

<sup>&</sup>lt;sup>46</sup>Ioannis Cinnami epitome rerum ab Ioanne et Alexio Comnenis gestarum, Bonn ed. (1836), 190.

<sup>&</sup>lt;sup>47</sup>Zonaras (note 22 above), 3, 759.

their sick guests.<sup>48</sup> In the hospital which Neilos of Ankyra described, a physician examined the patients and ordered appropriate therapies.<sup>49</sup> By the sixth century, the leading representatives of Greek medicine—the municipal archiatroi—were conducting daily rounds in the xenones of Constantinople.<sup>50</sup> Despite their prestige as the most experienced physicians, however, these archiatroi did not manage the hospitals where they worked. They did not even exercise complete control over admissions. When the cantor of the Miracula Sancti Artemii fell seriously ill in his apartment, the xenodochos—the hospital administrator and member of the patriarch's clergy—made the decision to assign him a hospital bed. The medical staff labored in vain for ten months to cure the man. When one of the archiatroi observed the extent of the malady after such treatment, he declared the case incurable. Nevertheless, he did not remove the patient from the hospital area. Rather, he prescribed some medicines to soothe the pain and allowed the cantor to remain in a xenon bed.<sup>51</sup>

The hospital administrators, whom Byzantine sources call *xenodochoi* or *nosokomoi*, were originally members of the clergy, deacons or priests. When John Chrysostom established new *nosokomeia* in Constantinople, he assigned two pious priests to supervise them.<sup>52</sup> A sixth-century *xenodochos* of the Sampson Xenon named Eugenios held the rank of deacon.<sup>53</sup> These clerical administrators had to manage the material resources of the hospitals, a task which required expertise in the Roman Law and the rules governing ecclesiastical property. As the miracle tale of the cantor illustrates, they also retained considerable influence over the medical aspects of *xenones* as well.

By the tenth century, however, physicians had gained greater control over the therapeutic side of hospital business. After having suffered severe head injuries, a subdeacon named Sergios was committed to the Euboulos Xenon of Constantinople. The staff physicians worked on Sergios for seven days with absolutely no success. They then decided that his case was hopeless and ceased to treat him. They

turned him over to the nursing staff who transferred him out of the *xenon* proper to a hospice of some sort where they could try to make his last days as comfortable as possible.<sup>54</sup> The physicians reached the decision whether or not to treat Sergios in the *xenon* not under the orders of an administrator, but on the basis of the ancient rules of their profession, in this case the Hippocratic injunction not to treat hopeless cases.<sup>55</sup> Discharging Sergios was a medical decision, and thus out of the hands of the administrator.

The twelfth-century rules governing the Pantokrator Xenon demonstrate that by that time the physicians controlled the admission of all new cases. The chief physicians of the hospital's medical staffnow called primmikerioi—were normally responsible for receiving patients into the institution. Most of the sick first entered the hospital through the outpatient clinic. Here two junior physicians were on duty to examine those who walked in or were carried to the door. If these doctors felt a case was serious enough for hospital care, they notified the primmikerios on duty who then dispatched a senior physician to decide on admission.<sup>56</sup> If a resident of the old-age home adjoining the Pantokrator fell ill, the priest of the home notified the hospital administrator who then sent a physician or medic to conduct a medical examination and determine whether the case warranted hospitalization.<sup>57</sup>

Not only had doctors gained control of all aspects of medical care at the Pantokrator, but the directors themselves were now chosen from among the physicians. In a letter to the *nosokomos* of the Pantokrator Xenon, John Tzetzes hailed the man as a leader of the medical profession. <sup>58</sup> So, too, the poet Prodromos described a *nosokomos* of an unnamed hospital as a physician who performed surgery. <sup>59</sup> At some time after the seventh century, then, physicians had replaced legal experts from among the clergy in the top administrative posts, at least in the sophisticated hospitals of Constantinople. That in the eleventh century the renowned Arab Christian physician Ibn Butlan was asked to organize a hospital in Antioch would seem to indicate

<sup>&</sup>lt;sup>48</sup> Basil, *ep.* 94 (note 11 above), 2, 150; *Palladii dialogus* (note 12 above), 32.

<sup>&</sup>lt;sup>49</sup>S. Nili epistolarum liber II, epp. 109–11, PG, 79, 248–49.

<sup>&</sup>lt;sup>50</sup>Miracula Artemii, mir. 22, 31.

<sup>&</sup>lt;sup>51</sup>Ibid., 28–31.

<sup>&</sup>lt;sup>52</sup> Palladii dialogus (note 12 above), 32.

<sup>&</sup>lt;sup>53</sup> Nov. 59.3, *Corpus iuris civilis: III. Novellae*, ed. R. Schoell and W. Kroll (Berlin, 1895), 319.

<sup>&</sup>lt;sup>54</sup> Vita S. Lucae Stylitae, in Les saints stylites, ed. H. Delehaye, Subs Hag, 14 (Paris-Brussels, 1923), 218.

<sup>&</sup>lt;sup>55</sup> Hippocrates, *The Art* 3.

<sup>&</sup>lt;sup>56</sup> PantTyp, 87 lines 975–79.

<sup>&</sup>lt;sup>57</sup>PantTyp, 111 lines 1370–78.

<sup>&</sup>lt;sup>58</sup>Ep. 81, Ioannis Tzetzae epistulae, ed. P. Leone (Leipzig, 1972),

<sup>&</sup>lt;sup>59</sup>Theodore Prodromos, *Historische Gedichte*, ed. W. Hörandner (Vienna, 1974), poem. 46, p. 432.

that physicians had won a dominant role in hospitals outside Constantinople as well.<sup>60</sup>

The relationship between the xenones of the Byzantine Empire and the medical profession was extremely close. In this respect, too, the facilities for the sick in the East Roman state resemble more the hospitals of the modern era than they do Western philanthropic institutions of the Middle Ages. Only in the nineteenth century did hospital service have a major impact on the organization of the Western medical profession. Here in the United States, as hospitals gained in status after 1800, physicians eagerly sought to associate with them and vied with one another for senior staff positions. The ascending ranks of hospital jobs gradually imposed a hierarchical structure on the medical profession in general. Those who held the highest rank on a hospital staff were also considered the leaders of the local profession.<sup>61</sup> One can trace the same development in Byzantine hospitals.

The small committees of archiatroi serving the cities of the Late Roman Empire already possessed an order of precedence. In 370 the emperor Valentinian I required that the archiatroi of Rome be ranked according to years in office.<sup>62</sup> The same system must have existed at Constantinople and in other cities throughout the Empire. 63 When the archiatroi took over hospital responsibilities under Justinian, they introduced this hierarchy of service into the xenon medical staff. The seventh and eighth centuries witnessed new developments in ranking hospital physicians, for a letter of Saint Theodore the Studite sketches a novel set of titles for hospital physicians. Doctors called *protarchoi* led the staff, followed by archiatroi; then came the middle physicians (mesoi) and the last physicians (teleutaioi) no doubt the most recent to join the staff.<sup>64</sup> In the tenth century, the title protomenites (leader of the month) first appears among xenon dignitaries, probably replacing archiatros. 65 The twelfth-century Pantokrator Xenon had a staff led by two primmikerioi (the old protarchoi), followed by two protomenitai and two senior surgeons; then came the four iatroi of the general wards, and at the bottom of the regular staff, the doctors of the women's ward. Four doctors described as extra (perissoi) treated the sick in the outpatient clinic.<sup>66</sup> These perissoi doctors received a salary, but there were apparently other perissoi physicians at the hospital who did not have posts with pay. These junior physicians may have been studying the practice of medicine as interns do in modern hospitals.<sup>67</sup>

Although the staff doctors of the Pantokrator had to come to the xenon all seven days of the week, they still had time for private practice. The entire staff of physicians was divided into two shifts with each shift working at the hospital only six months a year.68 This practice was at least as old as the seventh century, for the archiatroi of the Christodotes Xenon alternated hospital duties in a similar fashion.69 Such a system left six months a year entirely free for private practice. While treating hospital patients during the other six months, physicians received very low salaries—equal to or lower than the bare minimum income of day laborers. 70 These doctors, however, received some additional reward for their hospital service. The reward probably came from the great prestige which a hospital appointment or a higher-ranking xenon post brought with it—prestige which increased the earning potential of private practice. This, indeed, was the system in the highly regarded voluntary hospitals of nineteenth-century America, where the leading physicians of the community labored for the hospitals, collecting neither fees from the patients nor stipends from the institutions. These doctors were satisfied with the fame hospital service merited and the concomitant increase in the profits of private practice.<sup>71</sup> Both the low salaries and the part-time schedules of Byzantine xenon physicians suggest a similar system obtained in the East Roman Em-

The method of training Byzantine physicians

<sup>&</sup>lt;sup>60</sup> Schacht and Meyerhof (note 33 above), 65.

<sup>61</sup> Starr (note 4 above), 162-69.

<sup>62</sup>CTh 13.3, 9.

<sup>&</sup>lt;sup>63</sup>Cod. 1.27, 41: CIC, CI, 79 probably refers to the municipal archiatroi, though it appears in a list of salaries for the praetorian prefect's offices. The number of doctors is set at five, which corresponds to the number of municipal doctors fixed by Antoninus Pius (Digest 27.1, 6, 2: CIC, Dig, 391) for each city. Moreover, Cod. 1.27, 41 lists the physicians together with grammarians and rhetors just as Antoninus Pius did. Cod. 1.27, 41 was issued for Africa in 534 by Justinian. It probably reflects the arrangement in the Eastern provinces.

<sup>64</sup> Theodori Studitae epistolae, PG, 99, 1509.

<sup>65</sup> Hunger, "Medizin," 307.

<sup>66</sup> PantTyp, 85 line 937-87 line 979.

<sup>&</sup>lt;sup>67</sup> PantTyp, 87 lines 948–49 and 93 lines 1063–73.

<sup>&</sup>lt;sup>68</sup>PantTyp, 87 lines 955–64.

<sup>69</sup> Miracula Artemii, mir. 22, 30.

<sup>&</sup>lt;sup>70</sup>The salaries of the Pantokrator physicians are listed by Gautier, *PantTyp*, intro., 13. The highest-ranking physician, the *primmikerios*, received a salary of only 11.75 noumismata a year (8 noumismata and forty-five modioi of wheat). A living wage has been reckoned at roughly a noumisma a month (G. Ostrogorsky, "Löhne and Preise in Byzanz," BZ, 32 [1932], 297). The regular ward doctors received approximately 10 noumismata—less than a minimum wage.

<sup>&</sup>lt;sup>71</sup>Starr (note 4 above), 162–63.

surely strengthened the bonds between the *xenones* and the medical profession. In the classical world each established physician had gathered apprentices about him.<sup>72</sup> After the legislation of Antoninus Pius defined a small group of privileged doctors in each city, the archiatroi, these men came to predominate in training new physicians.<sup>73</sup> By Justinian's reign (527–65), they were the ordinary teachers of medicine.74 When these archiatroi entered *xenon* service, they simply continued to teach their science as they had before. There is, however, no direct evidence of medical instruction in Byzantine xenones before the end of the tenth century, although teaching medicine dominated the early Moslem hospitals, which surely derived from the xenones of the East Roman Empire. 75 When sometime in the tenth century the surgeon Niketas illustrated a manuscript both for reference and teaching in Constantinopolitan xenones, he provided the first indication that medical schooling formed a regular part of hospital routine.<sup>76</sup> In the twelfth century the Pantokrator Xenon hired a physician of the highest status to teach medical theory to the children of staff doctors.<sup>77</sup> Moreover, the group of *perissoi* doctors at the hospital was involved in some kind of student program.<sup>78</sup> Most probably they accompanied the *primmikerioi* on their daily rounds to observe the actual practice of the medical art. The most famous of the fourteenthcentury physicians, John Zachariah, began his career in this fashion as a *xenon* intern somewhere in Constantinople.<sup>79</sup> Hospitals still functioned as medical schools as late as the fifteenth century. The

<sup>72</sup> Aeschines, Contra Timarchum 40; Historia Apollonii regis Tyrii 26.

<sup>78</sup> For the office of *archiatros* see V. Nutton, "Archiatri and the Medical Profession in Antiquity," *PBSR*, 45 (1977), 191–226.

<sup>74</sup>Cod. 10.53, 6 (note 63 above), 422; Justinian reissued the earlier law of the emperor Constantine (CTh, 13.3, 3), adding that archiatroi normally taught.

<sup>75</sup>The Encyclopaedia of Islam, new edition, vol. 1 (Leiden and London, 1960), 1222–25.

<sup>76</sup>This ms. (Laurentianus gr. 74.7) includes three poems of thanks dedicated to the copyist, Niketas (on folio 7°). These poems are published in A. M. Bandini, *Catalogus codicum graecorum Bibliothecae Laurentianae* (Florence, 1770), cols. 80–83. Bandini dates the ms. to the eleventh century (col. 55), but J. Kollesch and F. Kudlien, *Apollonios von Kition: Kommentar zu Hippokrates über das Einrenken der Gelenke*, (Berlin, 1965), *CMG* XI.1, 1, p. 5 prefer the tenth century.

<sup>77</sup> PantTyp, 107 lines 1313–24.

<sup>78</sup>They were seen as advancing toward the status of *embathmos* (ordained). See *PantTyp* 93 lines 1063–73. Cf. V. Grumel, "La profession médicale à Byzance a l'époque des Comnènes," *REB*, 7 (1949), 42–46.

<sup>79</sup> Georgii Lacapeni epistulae x priores cum epimerismis editae, ed. S. Lindstam (Upsala, 1910), ep. 10, 21 scholium to line 26.

illustrious physician and philosopher John Argyropoulos was lecturing at the Krales Xenon just before the Turks conquered the Byzantine capital in 1453.80 An illumination in an Oxford Aristotle manuscript (Baroccianus 87, fol. 35) represents Argyropoulos teaching from a lofty *cathedra* with the *xenon* buildings in the background.

The physicians, of course, were not the only employees of the Byzantine hospitals. As the discussion of the *Miracula Sancti Artemii* illustrated, professional medical assistants or nurses called *hypourgoi* aided the doctors in caring for the sick. These *hypourgoi* applied medicines and frequently checked the patients' progress. Some of them apparently could perform minor surgery as well. They also were required to supervise the wards when the physicians were not present—a responsibility which made night duty mandatory.

The rules governing the Pantokrator Xenon provide the most information on the hypourgoi. Each of the five wards at this hospital had three ordained (embathmoi) hypourgoi and two extra (perissoi) hypourgoi. The outpatient clinic had four of each rank. The medical assistants of the women's ward were themselves women (hypourgissai).84 The extra hypourgoi were certainly full staff members since they received salaries only slightly less than the ordained assistants.85 The status of perissos seems to have reflected a lower grade of competence. The perissoi doctors and medical assistants had not reached a certain level of experience and/or knowledge. Perhaps perissos connotes some rank in a guild organization. The term bathmos (ordained) was used to describe full membership in the guild of Byzantine notaries, and the closely related embathmos probably had the same meaning for the medical profession.86 If this is true, then its opposite—perissos—would imply non-guild or apprentice status.

The *hypourgoi* were very poorly paid at the Pantokrator. The ordained medical assistants received only 2.5 *noumismata* a year from the hospital when a *noumisma* a month was considered a living wage. They also were given an *annona* allotment of twenty *modioi* of wheat, valued at approximately 1.66

<sup>&</sup>lt;sup>80</sup>F. Fuchs, Die höheren Schulen von Konstantinopel (Leipzig, 1926), 71.

<sup>81</sup> Miracula Artemii, mir. 22, 28-31.

<sup>82</sup> Bandini (note 76 above), poem. I, col. 81.

<sup>83</sup> Miracula Artemii, mir. 22, 30; PantTyp, 85 lines 939-41.

<sup>84</sup> PantTyp, 85 line 937–87 line 954.

<sup>&</sup>lt;sup>85</sup> PantTyp, intro., 13.

<sup>&</sup>lt;sup>86</sup>Liber Prefecti I.2 and 3, reprinted with introduction by I. Dujčev (London, 1970).

noumismata, and some small additional donatives. Moreover, these trained hypourgoi earned only half as much as did the simple servants (hyperetai).<sup>87</sup> The medical assistants, like their superiors the physicians, must have had some opportunity for private practice as paramedics to augment their meager incomes. The Pantokrator rules, however, do not state that they worked in monthly shifts as the doctors did.

Besides the hypourgoi, the Pantokrator Xenon employed a staff of eleven servants (hyperetai), five laundresses, two cooks, two backers, one usher, one keeper of the cauldrons, one groom for the doctors' horses, one gate keeper, one purser, four pall bearers, one miller, one latrine cleaner, and one employee to polish and sharpen the surgical instruments.88 There is absolutely no evidence that the patients at the Pantokrator or at any other Byzantine hospital performed physical tasks on behalf of the xenon. In this, the xenones of the East Roman state differed radically from the typical institution of the West, where the patient-residents had many duties about the facility.89 Even as late as the eighteenth century, a progressive foundation such as the Pennsylvania Hospital of Benjamin Franklin required the stronger patients to wash linens and assist in cleaning chores.90 At the Pantokrator, on the other hand, paid professionals were responsible for all tasks in the hospital. Just as in modern hospitals, the only obligation on the patient was responding to treatment.

Although far from complete, the answers to the questions above should serve to introduce the hospitals of the Byzantine Empire and to dispel the notion that they were not essentially medical institutions. There remains, however, one final question to discuss. Why did Byzantine physicians choose to devote a substantial portion of their time and energy to hospital work? One reason, of course, was the imperial will. At some point early in his reign, the emperor Justinian required the archiatroi to become hospital staff physicians. By the mid sixth century, however, East Roman physicians had thoroughly accepted hospitals as the proper theaters of their labors. When finding themselves in the service of Shah Khusro I ca. 560, a group of them requested that the Persian ruler establish a

xenon where they could fittingly practice their science.91 Is it possible that these Byzantine doctors had developed some technology which demanded a hospital setting—new surgical equipment perhaps or more complex pharmacological treatment which required constant monitoring? The results of this symposium may help to answer these two questions. Or did Byzantine physicians feel that hospital work enhanced the prestige of their profession? Certainly, the Christian philanthropic institutions which originated in the fourth century were extremely popular—indeed, they won the Christian Church many new converts in the cities of the Eastern Roman provinces.<sup>92</sup> Although some doctors resisted Justinian's hospital system, most no doubt saw advantages in an alliance with stable institutions enjoying the full support of the Church, the State, and popular opinion.93 Finally, a change in the ratio of the number of physicians to the size of the population as a whole might have stimulated hospital organization as a method which enabled fewer physicians to care for more patients. Perhaps the rapid population increase of the fifth and early sixth centuries forced a limited number of physicians to realign the profession around the hospitals. On the other hand, the radical upheavals of the seventh and eighth centuries might have drastically reduced the percentage of trained doctors in the population. In both cases, hospitals would have allowed Byzantine society to provide better medical care to more of its citizens, to both the very poor and to men and women of some substance.

From the reign of Justinian, hospitals stood at the center of the medical profession in the Byzantine Empire. Among the beds of these *xenones*, the best doctors spent half of their professional lives; in their lecture rooms and wards future physicians studied both the theory and practice of medicine. Indeed, the organization of the East Roman medical profession resembles in many ways the clinical medicine of Revolutionary France which recentered medical research and instruction in the hospitals of Paris. In the early nineteenth century, this

<sup>&</sup>lt;sup>87</sup> PantTyp, intro., 13. Cf. Ostrogorsky (note 70 above), 297. <sup>88</sup> PantTyp, 85 lines 937–43; 89 lines 996–1006; 105 lines 1271–

<sup>89</sup> S. Reicke, Das deutsche Spital und sein Recht im Mittelalter (Stuttgart, 1932), 2, 231–33; Starr (note 4 above), 159.
90 Starr (note 4 above), 159.

<sup>&</sup>lt;sup>91</sup> The Syriac Chronicle Known as that of Zachariah of Mitylene XIII.7, trans. F. S. Hamilton and E. W. Brooks (London, 1899), 331–32.

<sup>&</sup>lt;sup>92</sup>Ep. 22: The Works of the Emperor Julian (Loeb), 3, 68; Theodoros Anagnostes, Kirchengeschichte, ed. G. C. Hansen, GCS, 54 (Berlin, 1971), 59 lines 4–6, accuses Julian of desiring to win back the urban populace—the demoi—to paganism by imitating the Christian philanthropic institutions.

<sup>&</sup>lt;sup>93</sup> Some physicians joined a pagan plot against Justinian. See F. Nau, "Analyse de la seconde partie inédite de l'histoire ecclésiastique de Jean d'Asie," *ROChr*, 2 (1897), 481–82.

clinical movement made great progress in improving hospital care, in describing accurately the symptoms of diseases, in compiling statistical records regarding these same symptoms and the outcome of similar cases, and in pursuing pathological anatomy through repeated autopsies. <sup>94</sup> Is it possible that the *xenones* led Byzantine physicians along the same paths? East Roman physicians displayed an indifference to medical theories as did early nineteenth-century clinicians. Like the doctors of the clinical movement, they designed hospitals to promote hygiene and the comfort of patients. But

<sup>94</sup> For a history of the clinical movement in France, see E. Ackerknecht, *Medicine at the Paris Hospital*, 1794–1848 (Baltimore, 1967). See also the difficult study of M. Foucault, *The Birth of the Clinic*, trans. from the French by A. M. Sheridan (New York, 1973).

did they pursue new anatomical studies or conduct autopsies frequently? Were they interested in careful records of individual cases with detailed descriptions of the symptoms? So far, no evidence has surfaced that they had such interests. Careful consideration of Byzantine medical science, however, is only beginning, and the study and publication of medieval Greek medical treatises will surely reveal more clearly the achievements and failings of Byzantine medicine and the contribution of hospitals to its development.<sup>95</sup>

<sup>95</sup> A postscript. At this symposium on Byzantine medicine, Professor Alexander Kazhdan announced that he had found evidence in an ethical treatise of Symeon the New Theologian that Byzantine physicians of the eleventh century did indeed practice autopsies on human cadavers (see *Syméon le nouveau théologien: Traités théologiques et éthiques.*, ed. and trans. J. Darrouzès, SC, 129 [Paris, 1967], 2, 138–39).